Medical Inventory Management

User Story:

The Medical Inventory Management System is a comprehensive Salesforce application designed to streamline and manage various operational aspects of the medical inventory. It can efficiently maintain supplier details, manage purchase orders, track product details and transactions, and monitor expiry dates of products, thereby improving operational efficiency, data accuracy, and reporting capabilities.

Project Overview :

This project is a comprehensive Salesforce application to streamline and manage various operational aspects of medical inventory. The system aims to efficiently maintain supplier details, manage purchase orders, track product details and transactions, and monitor the expiry dates of products. Maintain detailed records of suppliers, including contact information. Catalog product information, including descriptions, stock levels. Monitor and track product expiry dates to avoid using expired items. Comprehensive reports to track supplier performance, and purchase orders.

Project Flow:

Milestone 1 : Creation of developer account
Milestone 2 : Object Creation
Milestone 3 : Tabs
Milestone 4 : The Lightning App
Milestone 5 : Fields
Milestone 6 : Updating of Page Layouts
Milestone 7 : Compact Layouts
Milestone 8 : Validation rules
Milestone 9 : Profiles
Milestone 10 : Roles
Milestone 11 : Users
Milestone 12 : Permission Sets
Milestone 13 : Flows
Milestone 14 : Triggers
Milestone 15 : Reports
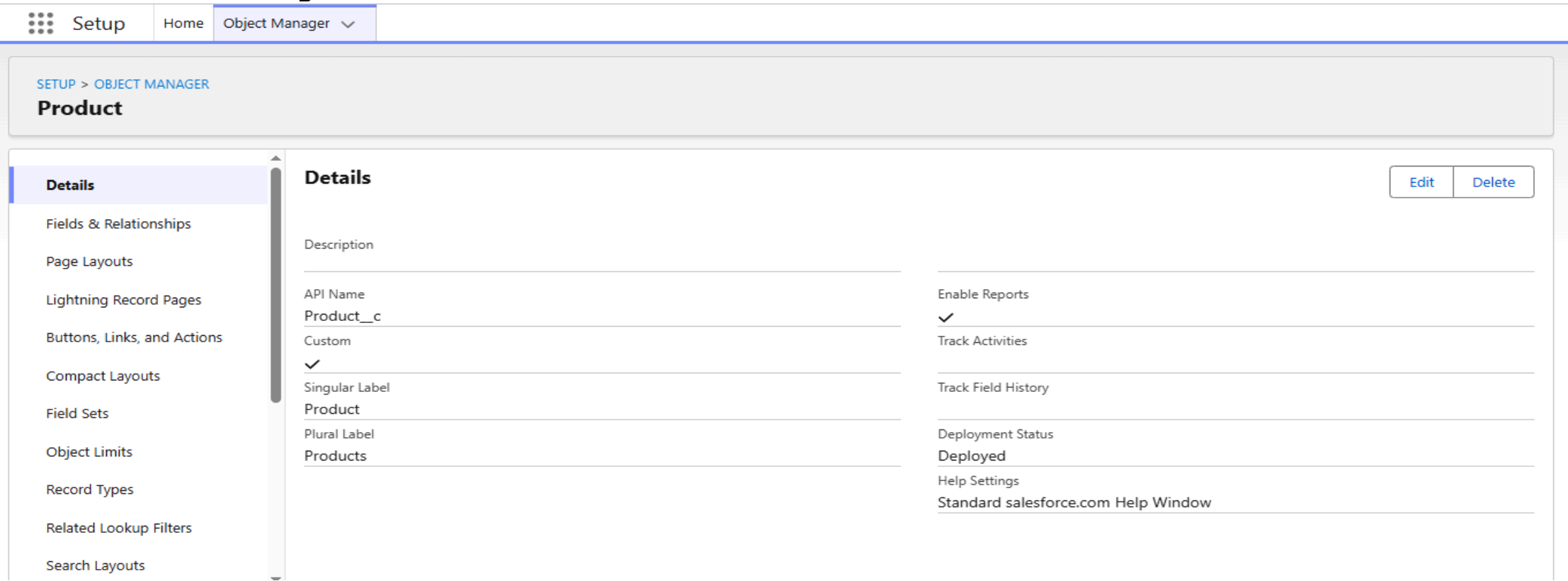Milestone 16 : Dashboards

Step 1: Creating Developer Account
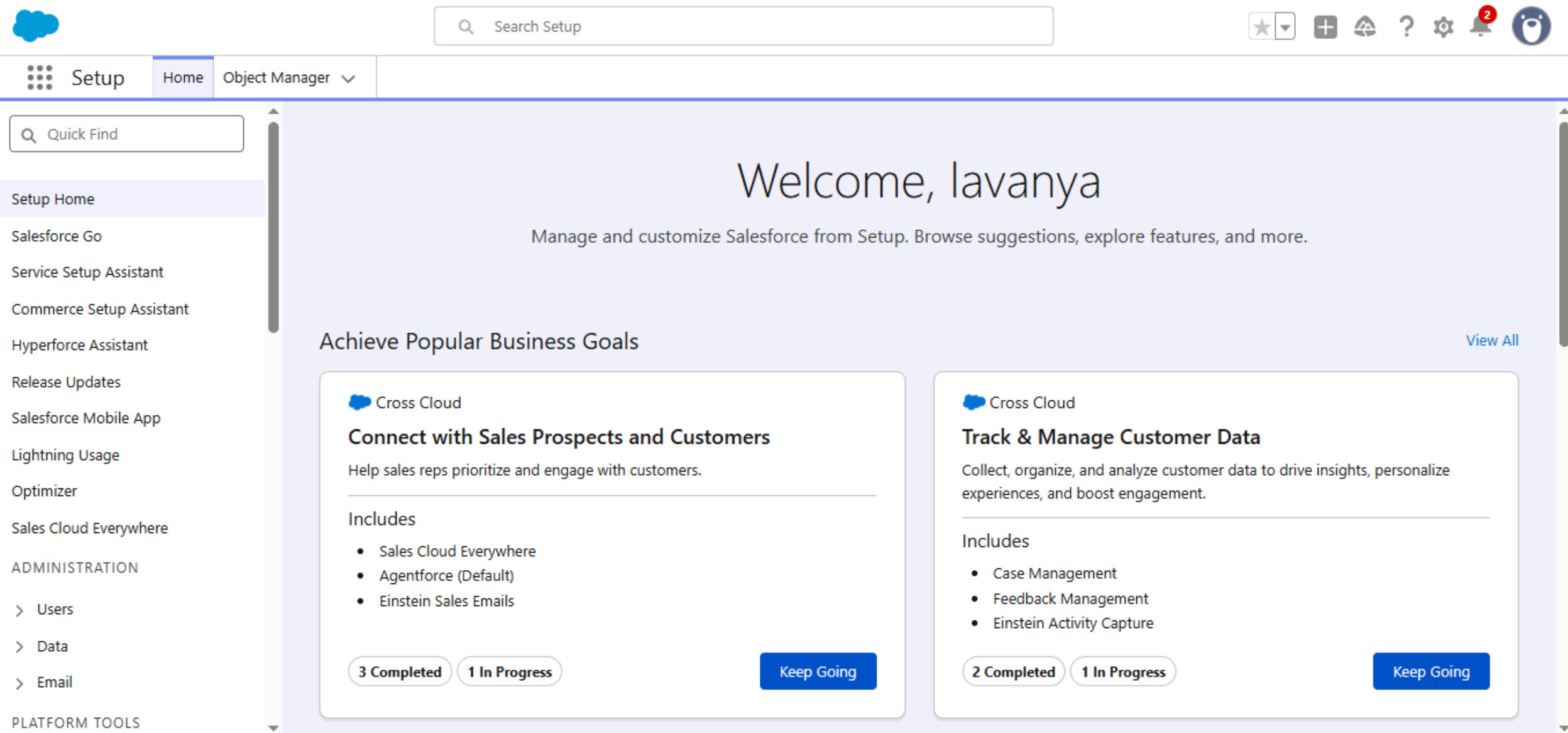
Step 2- Objects

In Salesforce, objects are database tables that allow you to store data specific to your organization.

Create Product, Purchase Order, Order Item, Inventory Transaction and Supplier objects.

1.Product object

2.Purchase order object

3.Order Item object

4.Inventory Transcation

5.Supplier

Supplier

Details	**Details**	Edit	Delete

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

Description

API Name
Supplier__c

Custom
✓

Singular Label
Supplier

Plural Label
Suppliers

Enable Reports
✓

Track Activities

Track Field History

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

Step 3- Tabs

In Salesforce, tabs are used to make the data stored in objects accessible to users through the user interface. Tabs are a fundamental part of the Salesforce interface, providing a way to navigate to different objects and records.

Tabs

Custom Tabs

Help for this Page

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs   New   What Is This?

Action	Label	Tab Style	Description
Edit	Del	Inventory Transactions	Heart	
Edit	Del	Order Items	Jewel	
Edit	Del	Products	Circle	
Edit	Del	Purchase Orders	Dice	
Edit	Del	Suppliers	Bridge	

Web Tabs   New   What Is This?
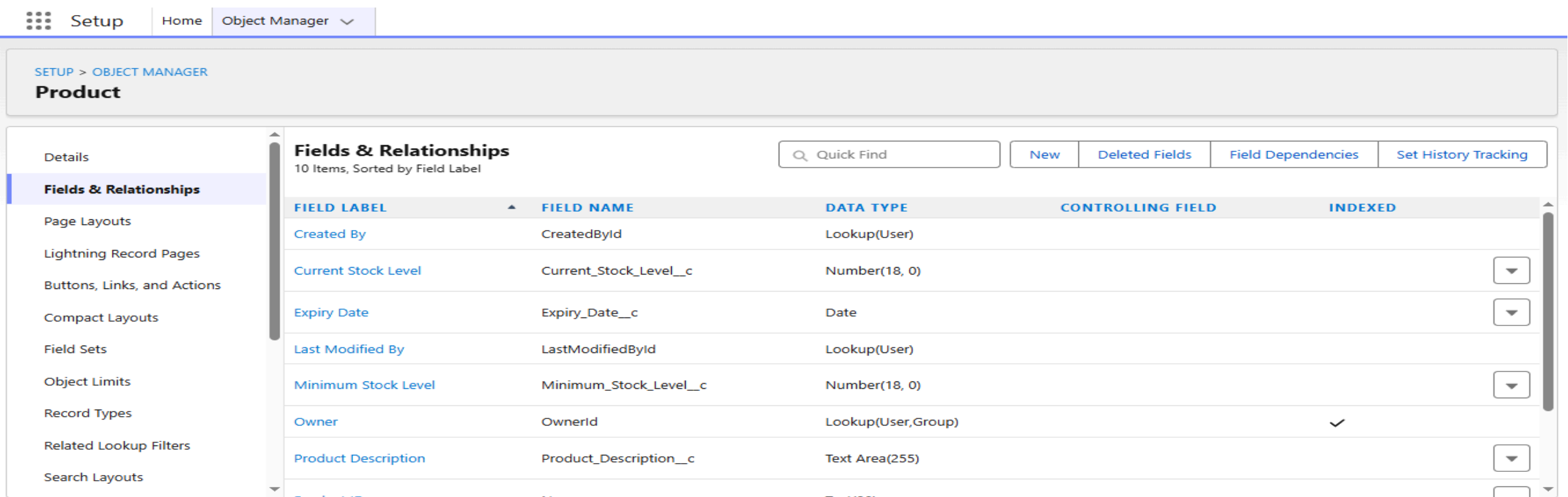
Step 4- The Lightning App

A Lightning App in Salesforce is a collection of items that work together to serve a particular function for the end-users. These items can include standard and custom objects, tabs, utilities, and other productivity tools. Lightning Apps are designed to provide a more intuitive and efficient user experience compared to traditional Salesforce apps.
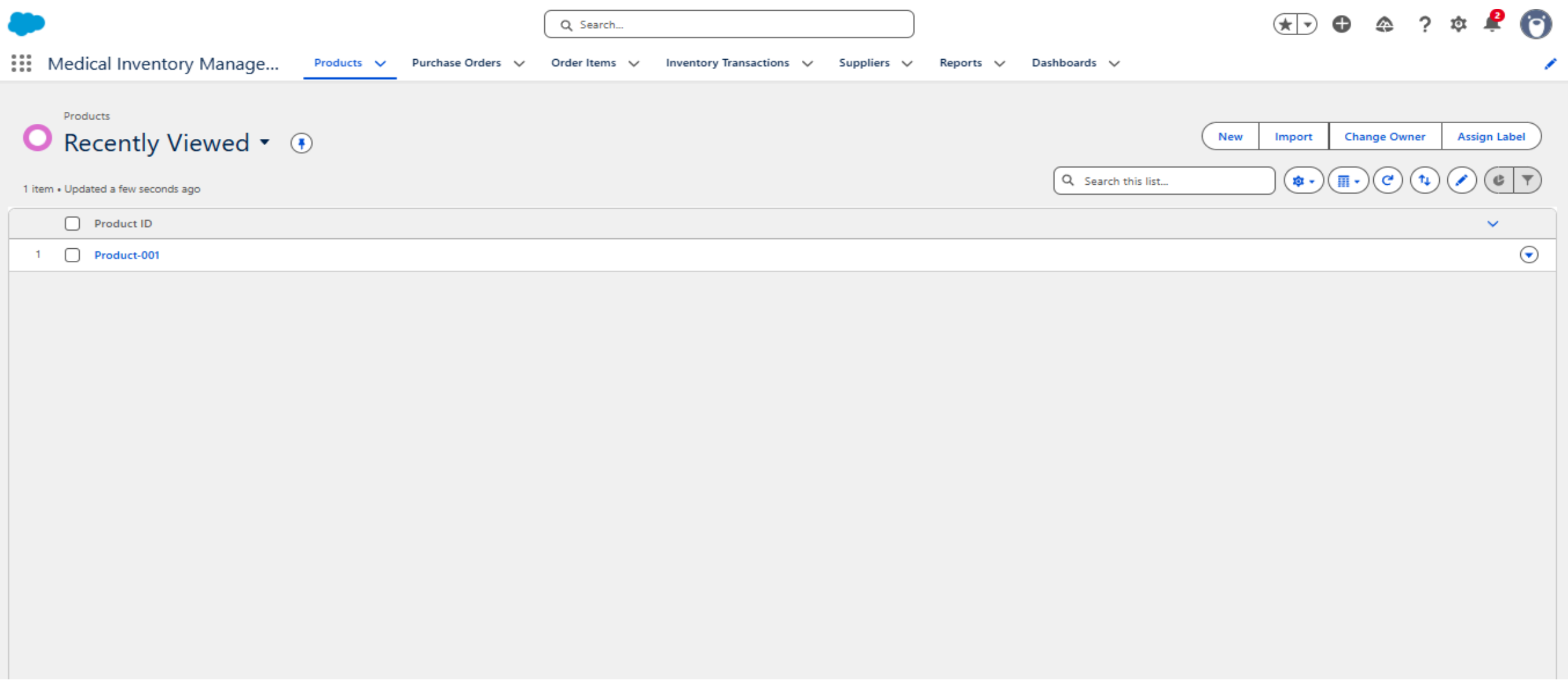
Step 5- Fields

Create a field for each object there are product, purchase order, inventory transaction, order Item and supplier object.

1.product fields

2.Purchase order fields

SETUP > OBJECT MANAGER
Purchase Order

	Fields & Relationships				
Details	10 Items, Sorted by Field Label		Quick Find	New | Deleted Fields | Field Dependencies | Set History Tracking	
Fields & Relationships	**FIELD LABEL** ▲	**FIELD NAME**	**DATA TYPE**	**CONTROLLING FIELD**	**INDEXED**
Page Layouts	Actual Delivery Date	Actual_Delivery_Date__c	Date		▼
Lightning Record Pages	Created By	CreatedById	Lookup(User)		
Buttons, Links, and Actions	Expected Delivery Date	Expected_Delivery_Date__c	Date		▼
Compact Layouts	Last Modified By	LastModifiedById	Lookup(User)		
Field Sets	Order Count	Order_Count__c	Roll-Up Summary (COUNT Order Item)		▼
Object Limits	Order Date	Order_Date__c	Date		▼
Record Types	Owner	OwnerId	Lookup(User,Group)	✓	
Related Lookup Filters					
Search Layouts					

3.Order Item fields

SETUP > OBJECT MANAGER
Order Item

	Fields & Relationships				
Details	9 Items, Sorted by Field Label		Quick Find	New | Deleted Fields | Field Dependencies | Set History Tracking	
Fields & Relationships	**FIELD LABEL** ▲	**FIELD NAME**	**DATA TYPE**	**CONTROLLING FIELD**	**INDEXED**
Page Layouts	Amount	Amount__c	Formula (Currency)		▼
Lightning Record Pages	Created By	CreatedById	Lookup(User)		
Buttons, Links, and Actions	Last Modified By	LastModifiedById	Lookup(User)		
Compact Layouts	Order Item ID	Name	Text(80)	✓	▼
Field Sets	Product ID	Product_ID__c	Lookup(Product)	✓	▼
Object Limits	Purchase Order ID	Purchase_Order_ID__c	Master-Detail(Purchase Order)	✓	▼
Record Types	Quantity Ordered	Quantity_Ordered__c	Number(18, 0)		▼
Related Lookup Filters					
Search Layouts					

4.Inventory Transaction fields

SETUP > OBJECT MANAGER
Inventory Transaction

	Fields & Relationships				
Details	8 Items, Sorted by Field Label		Quick Find	New | Deleted Fields | Field Dependencies | Set History Tracking	
Fields & Relationships	**FIELD LABEL** ▲	**FIELD NAME**	**DATA TYPE**	**CONTROLLING FIELD**	**INDEXED**
Page Layouts	Created By	CreatedById	Lookup(User)		
Lightning Record Pages	Last Modified By	LastModifiedById	Lookup(User)		
Buttons, Links, and Actions	Owner	OwnerId	Lookup(User,Group)	✓	
Compact Layouts	Purchase Order ID	Purchase_Order_ID__c	Lookup(Purchase Order)	✓	▼
Field Sets	Total Order Cost	Total_Order_Cost__c	Formula (Currency)		▼
Object Limits	Transaction Date	Transaction_Date__c	Date		▼
Record Types	Transaction ID	Name	Text(80)	✓	▼
Related Lookup Filters					
Search Layouts					

5.Supplier fields

Step 6 -Editing of Page Layouts

Page layouts in Salesforce are used to customize the organization, structure, and content of pages for viewing and editing records. They determine which fields, related lists, and custom links are visible to users, as well as the order and grouping of those elements.

1. A Page Layout in Product Object

2. A Page Layout in Purchase order Object

3. A Page Layout in Order Item Object

4. A Page Layout in Inventory Transcation Object

5.A Page Layout in Supplier Object
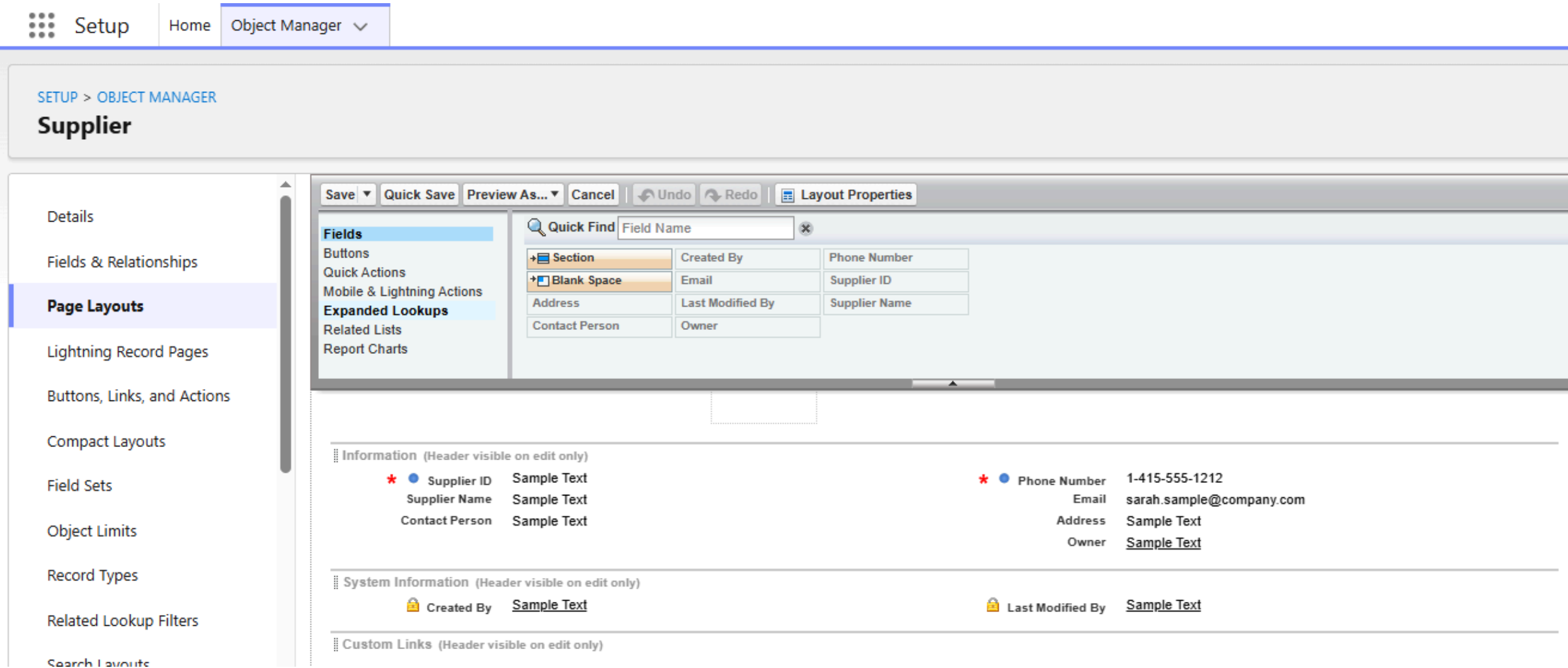
Step 7 - Compact Layouts

Compact layouts display a record's key fields at a glance, providing important information quickly without needing to open the record.

1: To create a Compact Layout to a Product Object
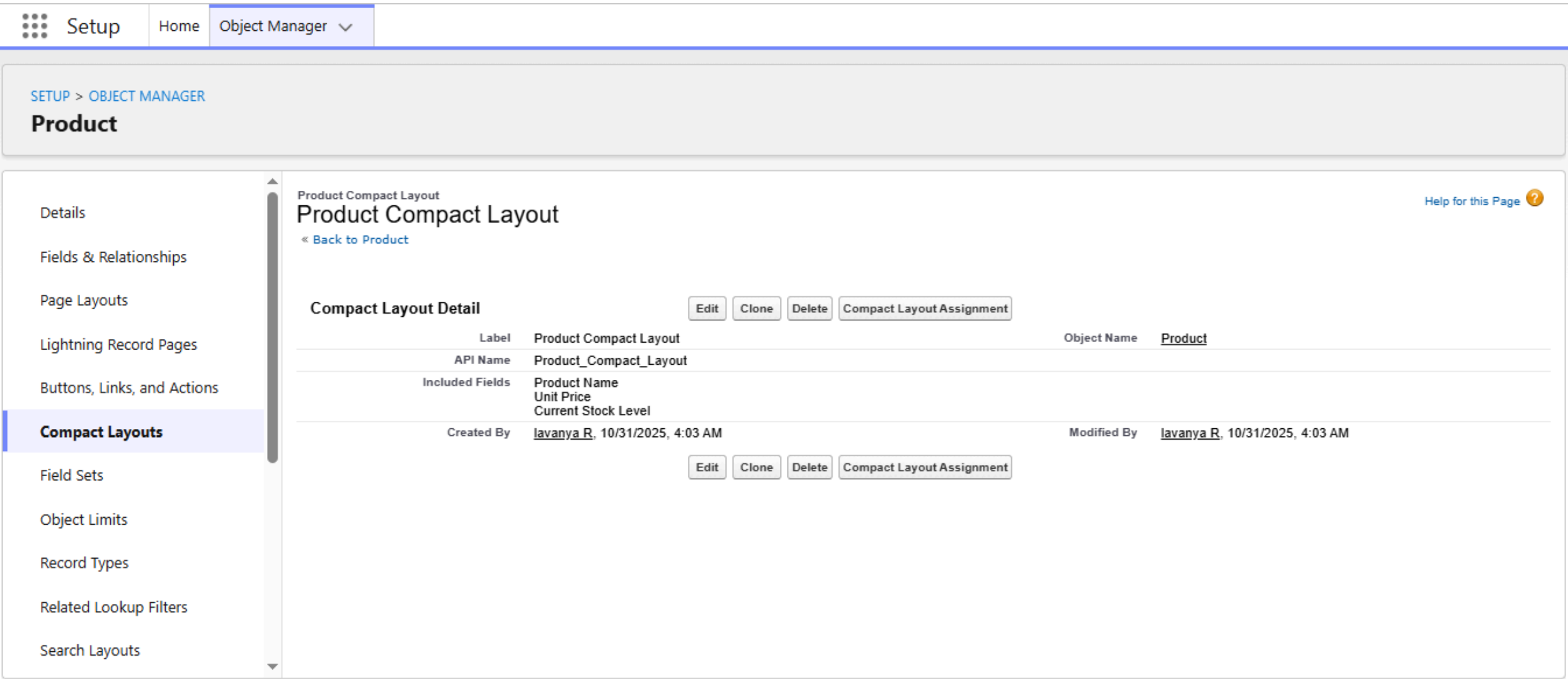
2: To create a Compact Layout to a Purchase Order Object
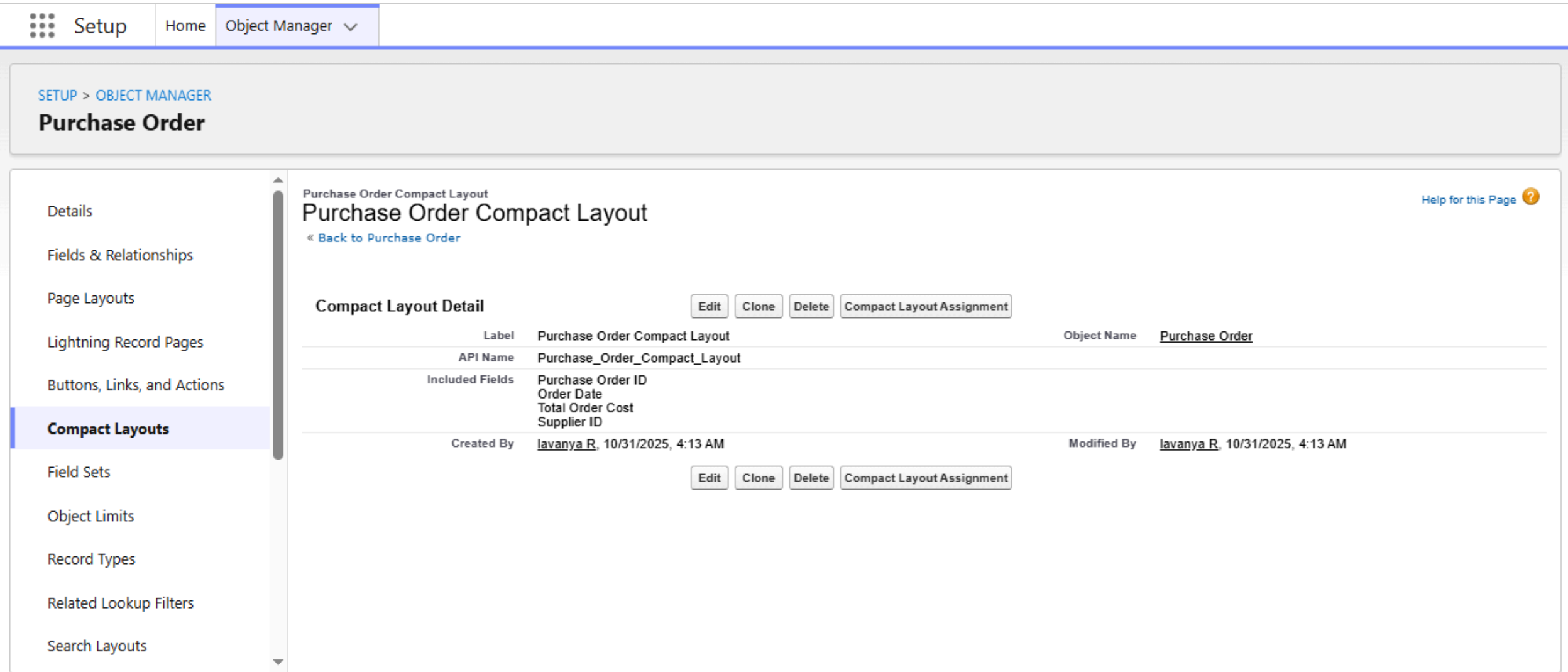
Step 8 - Validation Rules

Validation rules in Salesforce are used to ensure data integrity by preventing users from saving invalid data in records. They consist of a formula or expression that evaluates the data in one or more fields and return a value of true or false. When the rule's criteria are met (i.e., the expression evaluates to true), an error message is displayed, and the user is prevented from saving the record until the issue is resolved.

1: To create an Expected Delivery Date Validation rule to a Employee Object
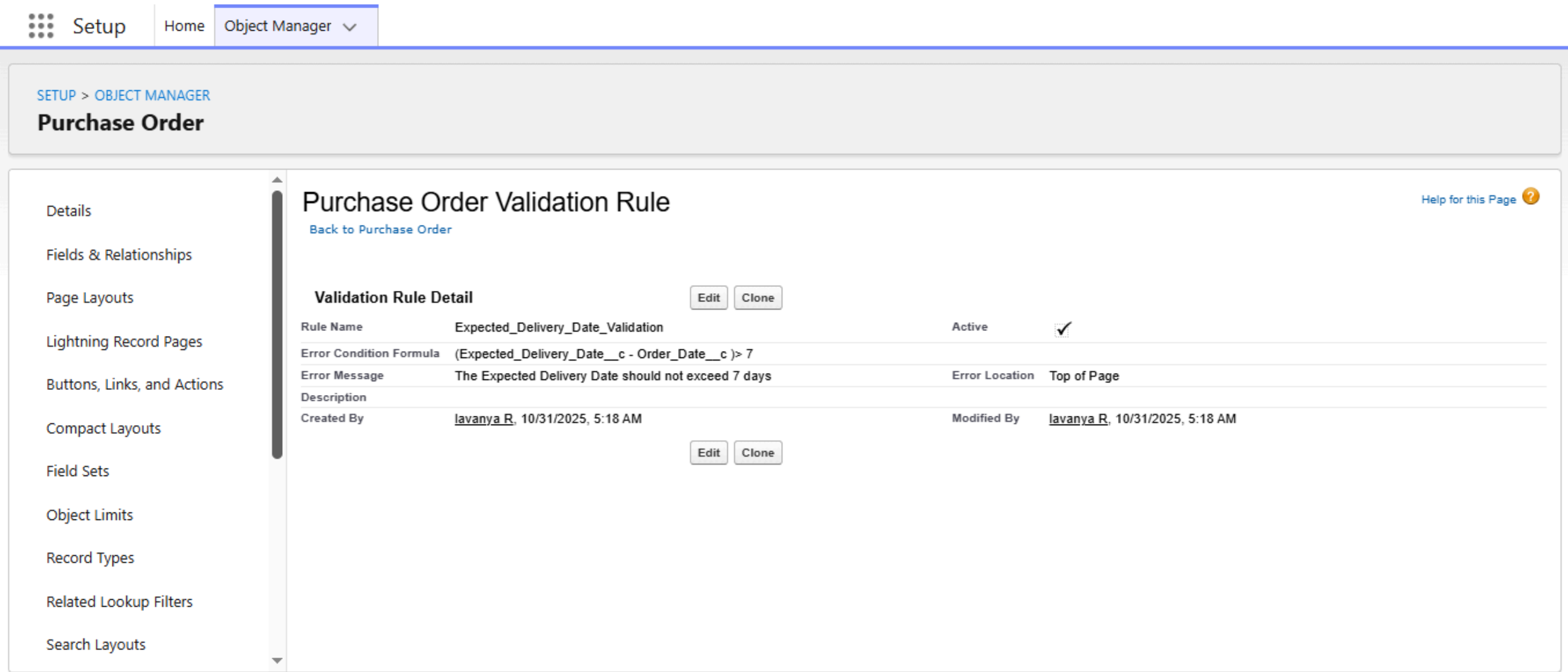
Step 9 - Profiles

Profiles in Salesforce are fundamental to the platform's security model, defining what users can do within the organization. Profiles control a user's permissions to objects, fields, tabs, apps, and other settings. Each user in Salesforce must be assigned a profile, and the profile assigned to a user determines what they can see and do in the system.

1: To create an Inventory Manager Profile

2: To create an Purchase Manager Profile

Step 10 - Roles

Roles in Salesforce are used to control record-level access and define the hierarchy of an organization, determining the level of visibility and sharing of records among users. Roles work in conjunction with profiles to provide a robust security model. While profiles control what actions users can perform (object and field permissions), roles control which records users can see based on their position in the hierarchy.

1 : Create a Purchasing Manager Role.

# 2 : Create a Inventory Manager Role.

Step 12 - Permission Sets

Permission Sets in Salesforce are a powerful tool to extend user permissions beyond what is defined in their profiles. They allow administrators to grant additional access to various tools and functions without altering the user's profile. Permission sets are particularly useful for providing specialized permissions to specific users without the need to create multiple profiles.

1 : Create a Permission Set.
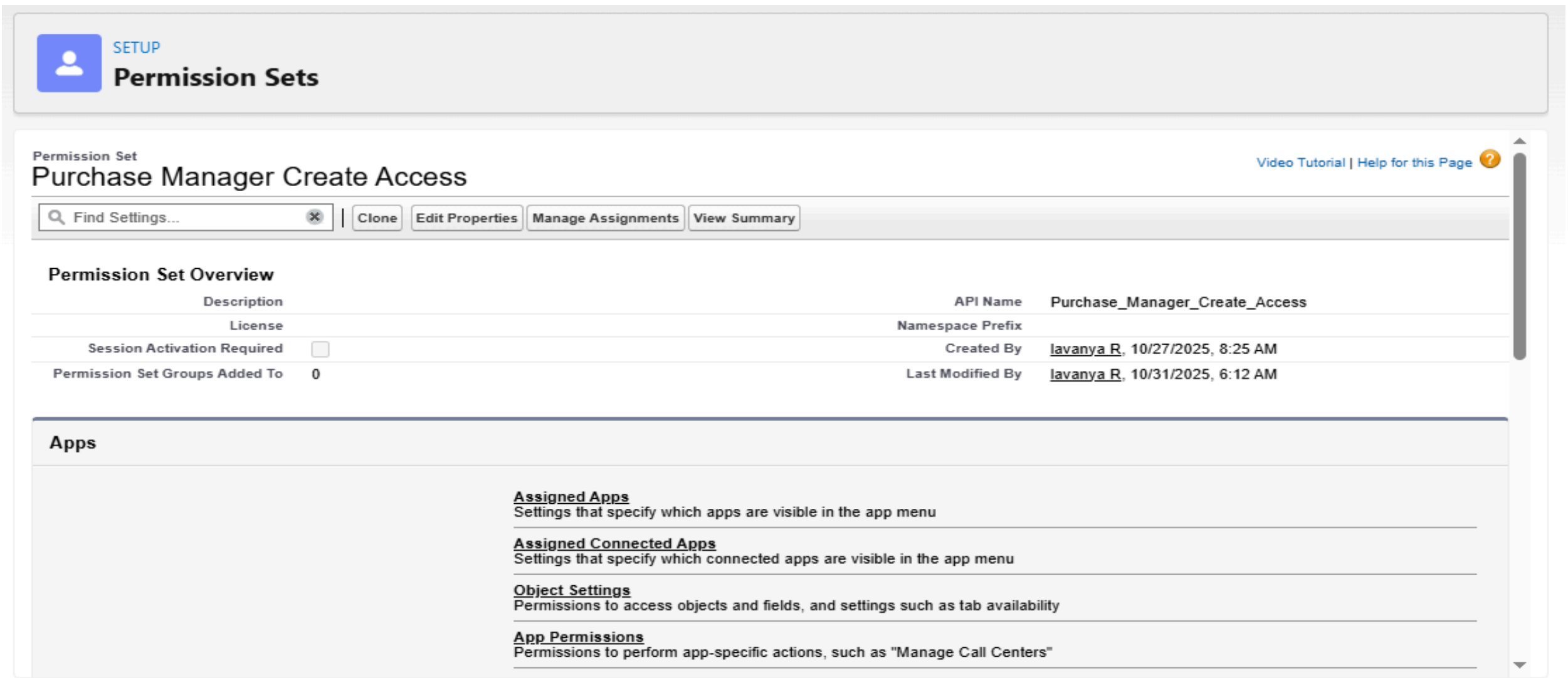
Step 13 - Flows

Flows in Salesforce, part of the Lightning Flow product, are powerful automation tools that help you collect data and perform actions in your Salesforce environment. Flows can be used to automate business processes, guide users through tasks, and integrate with external systems. They are highly versatile and can be configured to meet a wide range of business requirements without the need for custom code.

1 : Create Flow to update the Actual Delivery Date.
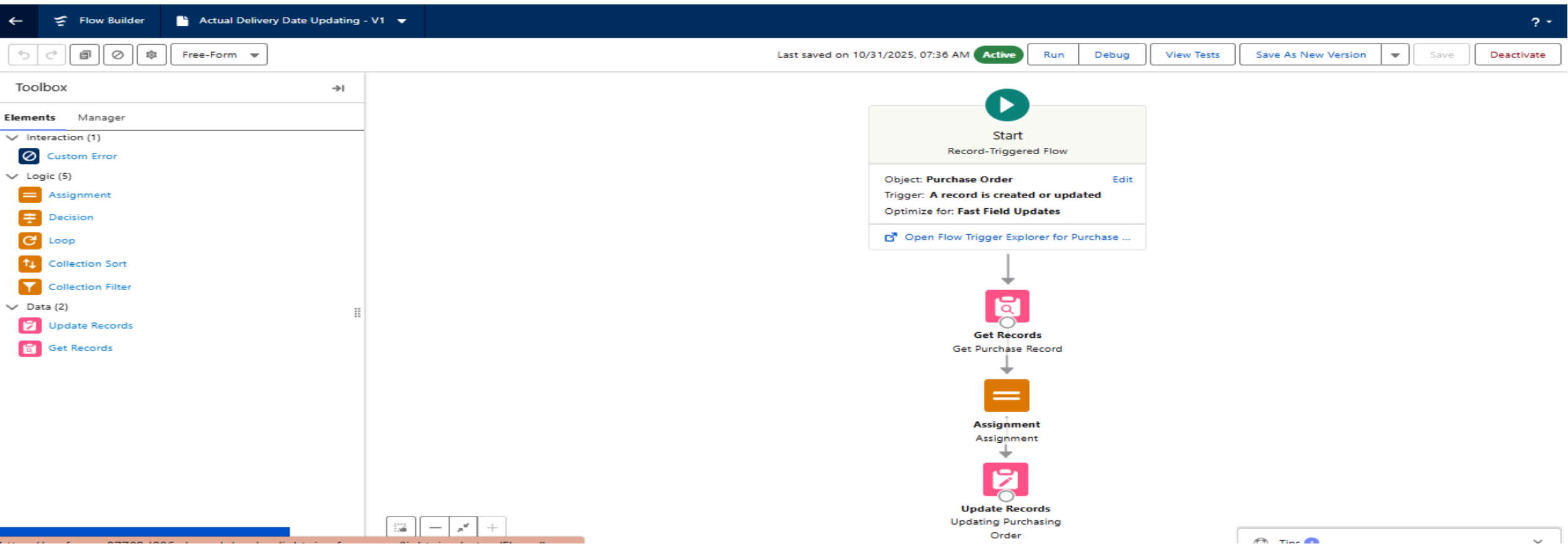
Step 14 - Triggers

Triggers in Salesforce are pieces of Apex code that execute before or after specific data manipulation events on Salesforce records, such as insertions, updates, deletions, and undeletions. They are powerful tools for automating complex business logic and ensuring data integrity by enforcing custom validation rules and workflows that cannot be achieved through declarative tools alone.

1 : Create a Trigger to Calculate total amount on Order Item.


```
trigger CalculateTotalAmountTrigger on Order_Item__c (after insert, after update, after delete, after undelete) {

    // Call the handler class to handle the logic

    CalculateTotalAmountHandler.calculateTotal(Trigger.new, Trigger.old, Trigger.isInsert, Trigger.isUpdate, Trigger.isDelete, Trigg

}
```

Step 15 - Reports

Reports in Salesforce provide a powerful way to visualize and analyze data stored in your Salesforce organization. They allow users to create, customize, and share different types of reports based on data from standard and custom objects. Reports help organizations make informed decisions by providing insights into key metrics, trends, and performance indicators.

1: Create a Purchase Orders based on Suppliers(Summary) Report

2: Create a Complete Purchase Details Report

Step 16 - Dashboards

Dashboards in Salesforce are dynamic visual representations of key metrics and data from reports, providing a consolidated view of organizational performance and trends. They are powerful tools for monitoring real-time data, tracking progress towards goals, and gaining actionable insights at a glance. Dashboards consist of components such as charts, tables, metrics, and gauges that display data from underlying reports.

1: - Create Dashboard